CEREAL RUST BULLETIN

Report No. 2

April 25, 2000

Issued by:

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- Wheat leaf rust is less severe than last year in the southern U.S.
- Wheat stripe rust is severe in northeastern Texas, northwestern Louisiana and northeastern Arkansas.
- Oat crown rust is severe this year throughout much of the southeastern U.S.
- Barley stripe rust is severe on susceptible lines in the Pacific Northwest.

In the southern U.S., the winter-sown small grain crop is generally in good condition and ahead of normal crop development. In the central Great Plains, the crop is in good shape with minimal winter damage this year. In the northern spring grain growing area, planting commenced at an early date, but the recent cool wet weather has slowed things.

Wheat stem rust. By mid-April, wheat stem rust was severe in southern Texas plots and light in central Texas plots. This rust development appears to be the result of more than one spore shower. By the second week in April, light amounts of stem rust were found on several entries in central Louisiana wheat plots.

Wheat leaf rust. During the third week in April, leaf rust was severe in plots from south to north Texas in susceptible cultivars. Rust development was light in Texas fields (Fig. 1). The mild winter and rainfall in late March and early April contributed to the rust development in much of this area. In mid-April, leaf rust severities of 60% were observed in central Texas plots of TAM-107.

In early April, leaf rust was light throughout Oklahoma and south central Kansas. In central Oklahoma plots, 10-30% severities were observed on the lower to mid leaves. During the third week in April, in south central Kansas plots, 10% severities were observed on the mid leaves. In Kansas, only light amounts of leaf rust overwintered, which is the same as in 1998 and 1999.

During mid-April, leaf rust was moderate in plots of susceptible southern soft red winter wheat cultivars and light in fields within approximately 75 miles of the Gulf Coast. In much of the southeastern U.S., rainfall was lower than normal during the winter and so far this spring also has been lighter than normal. Therefore, conditions for leaf rust development have not been good.

In mid-April, 30-50% severities were reported in plots in central South Carolina.

Wheat stripe rust. By the third week in April, wheat stripe rust was severe in commercial fields throughout northeastern Texas and northwestern Louisiana. Entire fields were yellow from top to bottom and many fields were abandoned because of stripe rust. Many fields were sprayed with the fungicide Tilt. Late maturing soft red winter wheat fields were especially hard hit and a 10% loss to stripe rust is expected in northeastern Texas. Much of this rust development was due to the mild winter which allowed for wheat to start growing early and overwintering rust to get an early start. Then in the early spring there was good moisture, cool spring temperatures and unusually cool nights which all allowed for perfect conditions for stripe rust development..

During mid-April, stripe rust was increasing throughout the state of Arkansas. Foci several hundred feet in diameter were found where stripe rust had overwintered. More Tilt has been sprayed this year than in any of the last 5 years. This area could be a source of stripe rust inoculum for states north and east of Arkansas, especially in the soft red winter wheat areas of Indiana and Illinois.

In mid-April, wheat stripe rust severities of 60% were reported on susceptible winter wheat lines in the Skagit valley nursery in western Washington.

Oat stem rust. In mid-April, oat stem rust was light in southern Louisiana nurseries. The oat stem rust had not increased very much because of the cooler than normal temperatures during the first half of April. The rust development was much less than last year, when rust had already killed many of the lines in the Baton Rouge nursery by April 20.

In early April, oat stem rust was severe in southern Texas plots and moderate in central Texas plots.

Oat crown rust. Oat crown rust increased rapidly during April from south and central Texas through southern Louisiana to southern Alabama. During mid-April, crown rust was severe in these areas like last year, but there appears to be less crown rust further east. During mid-April, 50 - 75% crown rust severities were observed on susceptible oat plots in the Baton Rouge, Louisiana nursery.

Buckthorn. Buds on buckthorn, the alternate host for oat crown rust, are just beginning to break in the buckthorn nursery at St. Paul. This date is normal for most years.

Barley stem rust. In early April, a barley stem rust collection was made in the Uvalde, Texas plots. Stem rust on barley rarely occurs in the southern U.S.

Barley leaf rust. In early April, light barley leaf rust was found in plots at Uvalde, Texas.

Stripe rust on barley. In early April, stripe rust was found on winter barley cultivars and experimental lines in plots at the Corvallis, Oregon experiment station.

In mid-April, barley stripe rust was severe on susceptible lines and crosses in a nursery in the Sacramento Valley of California.

In mid-April, stripe rust severities of 20% were reported on susceptible winter barley lines in the Skagit Valley nursery in western Washington.

Rye rusts. During late March, 20-50% rye leaf rust severities were observed on rye growing in plots within 75 miles of the Gulf Coast in Alabama and Florida.

Fig. 1. Leaf rust severities in wheat fields on April 25, 2000